

**ENGLISH TO SIGN LANGUAGE (E2SL):
A TOOL TO ASSIST HEARING IMPAIRED STUDENTS TO
LEARN COMPUTER TERMINOLOGIES**

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**ENGLISH TO SIGN LANGUAGE (E2SL):
A TOOL TO ASSIST HEARING IMPAIRED STUDENTS TO
LEARN COMPUTER TERMINOLOGIES**

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fulfillment of the requirement for the degree
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Abstract

This research aimed to understand the hearing impaired students' needs. A prototype tool was designed to assist hearing impaired students in learning about computer terminologies. The prototype works as a dictionary to translate computer terminologies from English text to American Sign Language format. This tool provides definition and related information about each terminology. Illustrated pictures, video, and voice will be used to help users to better understand and be familiar with computer terminologies. The terminologies translated to specific signs where every terminology has a unique sequence of signs that make it easier for children to recognize and learn. Also, the system provides a pronunciation example for each terminology because some of disabled students may only have mild a hearing impaired problem. This may help these students to learn the correctly pronunciation of the computer terminologies. At same time, the system provides a related video to help the students to understand the terminologies. Since the end users of this prototype are children who are hearing impaired, the tool was developed to be easy to use and without long training durations.

Dedication

I would like to dedicate this thesis to my parents, and to my siblings, and to my best friend Ziad.

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CHAPTER 1: INTRODUCTION

1.0 Introduction

The number of disabled people in the world increased day by day (Iezzoni, O'Day, Killeen, & Harker, 2004). There is great development in the world of information technology. Different groups in society have benefited from information technology. Nowadays there is a widespread use and access to Information technology. So, it is necessary to use information technology in the service of disabled people in various fields. Education enhanced the individual skills of disabled people to be able to rely on themselves and play a more positive role in society. The aim of this study is to help hearing impaired students in learning process.

The approach of this study has been demonstrated in details and the developing steps were highlighted by the methodology. The prototype will help the students who are hearing impaired to learn from teachers in better way. At same time, it will assist teachers to explain the computer science terminologies using American Sign Language.

1.1 Problem Statement

According to Ahmed and Seong (2006), there are approximately 70 millions deaf people in the world. Most of these people are using sign language for communicating amongst themselves and with normal people (Ahmed & Seong, 2006). Deaf students have a lot of

The contents of
the thesis is for
internal user
only

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